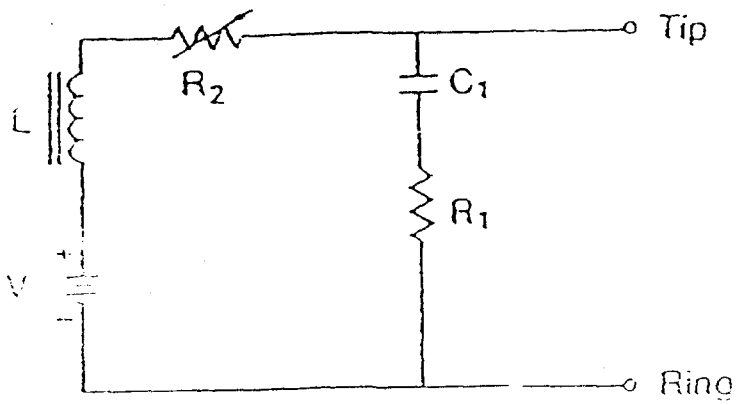
PSDS functionality, located between the Network Interface and the data terminal equipment. (It also is sometimes referred to as Network Channel Terminating Equipment).

* * *

Test Equipment: Equipment connected at the customer's premises that is used on the customer's side of the network interfaces: (a) to measure characteristics of the telephone network; or (b) to detect and isolate a communications fault between a terminal equipment entity and the telephone network. Registration is required for test equipment capable of functioning as portable traffic recorders or equipment capable of transmitting or receiving test tones; except registration is not required for devices used by telephone companies solely for network installation and maintenance activities such as hand-held data terminals, linesmen's handsets, and subscriber line diagnostic devices.

* * * * *



L ≥ 10H (Resistance=R_L)
R_1 = 600 Ω ± 1%
C_1 = 500μF, −10%,+ 50%

TEST CONDITIONS FOR ANALOG MODE

V (Volts)		R_2+R_L (Ohms)
Min	Max	Continuously Variable
36	46	610 To 1510

Fig. 68.3 (H) SIMULATOR CIRCUIT FOR PSDS IN ANALOG MODE

4. In Section 68.104(b), the designation "§ 68.308(a)(4)(i) or (ii)" is removed, and the designation "§ 68.308(b)(4)(i) or (ii)" is added in its place.

5. In Section 68.112(b)(2), the word "policy" is removed, and the word "police" is added in its place.

6. In the first sentence of the introductory text of Section 68.200, the words "two copies" are removed, and the words "one copy" are added in their place; and Section 68.200(d) is revised to read as follows:

Subpart C -- Registration Procedures

§ 68.200 Application for equipment registration.

An original and one copy * * *

* * * * *

(d) A statement that the terminal equipment or protective circuitry complies with and will continue to comply with the rules and regulations in Subpart D of this part, accompanied by such test results, description of test procedures, analyses, evaluations, quality control standards and quality assurance standards as are necessary to demonstrate that such terminal equipment or protective circuitry complies with and will continue to comply with all the applicable rules and regulations in Subpart D of this part. The Common Carrier Bureau will publish a Registration Application Guide referencing acceptable test procedures; but other test methods may be employed provided they are fully described in the application and are found acceptable by the Commission.

* * * * *

7. In the third line of Section 68.208(a), the phrase "of this part of which" is removed, and the phrase "of this part or which" is added in its place.

8. Section 68.211 is added to read as follows:

§ **68.211 Registration revocation procedures.**

(a) Cause for revocation. The Commission may revoke the part 68 registration of a registrant:

(1) Who has obtained the equipment registration by misrepresentation; or

(2) Whose registered equipment is shown to cause harm to the network; or

(3) Who willfully or repeatedly fails to comply with the terms and conditions of its part 68 registration; or

(4) Who willfully or repeatedly fails to comply with any rule, regulation or order issued by the Commission under the Communications Act of 1934 relating to equipment registration.

(b) Notice of Intent to Revoke Part 68 Registration. Before revoking a part 68 registration under the provisions of this section, the Commission, or the Common Carrier Bureau under delegated authority, will issue a written Notice of Intent to Revoke part 68 Registration, or Joint Notice of Apparent Liability for Forfeiture and Intent to Revoke part 68 Registration pursuant to sections 1.80 and 1.89 of the rules.

(1) Contents of the Notice. The Notice will:

(i) Identify the registration date(s) and registration number(s) of the equipment, and the rule or federal law apparently violated;

(ii) Set forth the nature of the act or omission charged against the registrant, and the facts upon which such charge is based;

(iii) Specify that in the event of revocation, the registrant may not reapply for registration of the same product for a period of six months; and

(iv) Specify that revocation of the registration may be in addition to, or in lieu of, an amount in forfeiture levied pursuant to Section 1.80 of the rules.

(c) Delivery. The Notice will be sent via certified mail to the registrant at the address certified in the part 68 application associated with the registration at issue.

(d) Response. The registrant will be given a reasonable period of time (usually 30 days from the date of the Notice) to show, in writing, why its part 68 registration should not be revoked or why the forfeiture penalty should not be imposed or should be reduced.

(e) Reapplication. A registrant whose registration has been revoked may not apply for registration of the same product for a period of six months from the date of revocation of the registration.

(i) Reconsideration or appeal. A registrant who is issued a revocation of equipment registration and/or forfeiture assessment may request reconsideration or make administrative appeal of the decision pursuant to part 1 of the Commission's rules -- Practice and Procedure, 47 C.F.R. part 1.

9. Section 68.300(c) is added to read as follows:

Subpart D -- Conditions for Registration

* * * * *

§ 68.300 Labelling requirements.

* * * * *

(c) When the device is so small or for such use that it is not practical to place the labelling information specified in paragraphs (a) and (b), the information required by these paragraphs shall be placed in a prominent place in user instructions. The FCC Registration Number and the device Model Number, however, must be displayed on the device. All lettering on the label must be discernible without magnification.

10. Section 68.308 is amended by revising paragraph (a); adding paragraphs (b)(1)(viii) and (b)(2)(iii); adding a table of conditions to paragraph (b)(7)(ii)(C); removing from the table in paragraph (f)(2)(ii) the words "20 kHz" and inserting in their place the words "120 kHz"; revising the first sentence of paragraph (h)(2)(v); and adding paragraphs (h)(3), (h)(3)(i), and (h)(4) to read as follows:

§ 68.308 Signal power limitations.

(a) General. Limitation on signal power shall be met at the interface for all 2-wire network ports, tip and ring conductors to PSDS Types II and III, and, where applicable to services, both transmit and receive pairs of all 4-wire network ports. Signal power measurements will be made using terminations as specified in each of the following limitations. The transmit and receive pairs of 4-wire network ports shall be measured with the pair not under test connected to a termination equivalent to that specified for the pair under test. Through-gain limitations apply only in the direction of transmission to the network.

(b) * * *

(1) * * *

(viii) For PSDS (Types I, II and III) terminal equipment when in the digital mode of transmission, the maximum equivalent power of any encoded analog signal (other than live voice) shall

not exceed -12dBm when averaged over any 3-second interval. The equivalent analog power shall be derived by a zero-level decoder located at the network interface to PSDS (Type II or III) facilities.

(2) * * *

(iii) For PSDS (Types I, II and III) terminal equipment, when in the digital mode of transmission, the maximum equivalent power of any encoded analog signal shall not exceed -3dBm when averaged over any 3-second time interval. The equivalent analog signal shall be derived by a zero-level decoder located at the network interface to PSDS (Types II or III) facilities.

* * * * *

(7) * * *

(i) * * *

(ii) * * *

(C) Except for ... for the following conditions (see Fig. 68.3(f)):

CONDITION	R2 + RL	
	CLASS B	CLASS C
1	600	1300
2	1800	2500

* * * * *

(h) * * *

(1) * * *

(2) Limitations on Terminal Equipment Connecting to 1.544 Mbps Digital Services and ISDN PRA Services --

* * * * *

TABLE III

Pulse Height (volts)	2.4 to 3.6
Pulse Width (half amplitude)(nsec)	324 +/- 45
Maximum rise or fall time: from 10% to 90% points (nsec)	100

* * *

(v) Encoded analog content. If registered terminal equipment connected to 1.544 Mbps digital service or to ISDN PRA service contains an analog-to-digital converter, or generates signals in digital form which are intended for eventual conversion to voiceband analog signals, the encoded analog content of the subrate channels of the ISDN information bearing channels within the 1.544 Mbps signal must be limited.

* * *

(3) Pulse Repetition Rate. For PSDS (Type II) the pulse repetition rate shall be a maximum of 144,000 pulses per second +/-5 pulses per second; for PSDS (Type III) the pulse repetition rate shall be a maximum of 160,000 pulses per second +/-5 pulses per second.

(i) Template for maximum output pulse. When applied to a 135 ohm resistor the instantaneous amplitude of the largest isolated output pulse obtainable from the registered terminal equipment shall fall within the template of Table IV(A) for PSDS Type II or Table IV(B) for PSDS Type III. The limiting pulse template shall be defined by passing an ideal 50% duty cycle rectangular pulse within the amplitude/pulse rate characteristics of Table IV(A) or Table IV(B) through a 1-pole low-pass filter with a 3dB frequency of 260 kHz.

PULSE CHARACTERISTICS	TABLE IV(A)	TABLE IV(B)
Pulse Height	2.6 volts +/-5%	2.4 volts +/-5%
Pulse Width	3472.2 +/-150ns	3125 +/-100ns
Max Rise or Fall Time (from 10% to 90% points)	100ns	1.2 microsecond +/- 0.2 microsecond

* * * * *

11. Section 68.310 is amended by revising the table in paragraph (a), revising the introductory text of paragraph (i), and revising (l) to read as follows:

§68.310 Longitudinal balance limitations.

(a) * * *

Paragraph	Equipment State	Minimum Balance Requirement, dB	Frequency Range, Hz
(b)	On-hook On-hook Off-hook	60 40 40	200 - 1000 1000 - 4000 200 - 4000
(c)	On-hook On-hook Off-hook	60 40 40	200 - 1000 1000 - 4000 200 - 4000
(d)	Off-hook	40	200 - 4000
(e) Voice Equipment	On-hook On-hook Off-hook	60 40 40	200 - 1000 1000 - 4000 200 - 4000
(e) Data Equipment	On-hook On-hook Off-hook	60 40 40	200 - 1000 1000 - 4000 200 - 4000
(f)	Off-hook	40	200 - 4000
(g)	On-hook On-hook Off-hook	60 40 40	200 - 1000 1000 - 4000 200 - 4000
(h)	Off-hook	40	200 - 1000
(i)	On-hook On-hook Off-hook	60 40 40	200 - 1000 1000 - 4000 200 - 4000
(j)	Off-hook	40	200 - 4000

(i) Registered terminal equipment and registered protective circuitry for 4-wire network ports. The pair under ... impedance. The pair not under test shall be terminated in a metallic impedance of 600-ohms.

* * * * *

(l) The maximum ... 1.544 Mbps shall be 100 ohms plus or minus one percent. The metallic termination used for the longitudinal balance measurements (M-L balance) for subrate, ISDN (BRA) and PSDS shall be 135 ohms +/- 1% and for 1.544 Mbps and ISDN (PRA) shall be 100 ohms +/- 1%. The longitudinal termination for these measurements (L-M balance) shall be 90 ohms in all cases.

* * * * *

12. Section 68.312 is amended by revising the introductory sentences of paragraph (b); revising paragraph (b)(2); removing from paragraph (c)(2) the words "paragraph (a)(2)" and adding in their place the words "paragraph (b)(2)"; and by amending the second sentence of paragraph (h) to read as follows:

§ 68.312 On-hook impedance limitations.

(a) * * *

(b) Limitations on individual equipment intended for operation on loop-start telephone facilities, including PSDS Type II in the analog mode:

* * * * *

(2) Registered terminal equipment and registered protective circuitry intended for use on facilities which will always have ringing detection circuitry in use at the same time such registered terminal equipment and registered protective circuitry is connected need not comply with the 40 kilohms maximum impedance specification of paragraph (b)(1)(iv) of this section.

* * * * *

(h) Limitations ... (DID).

PBX ringing supplies whose output appears on the off-premises interface leads shall not trip when connected to the following tip-to-ring impedance which terminates the off-premises station loop: ...

* * * * *